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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/565,210 | 01/20/2006 | Benjamin Elias | COCH-0078-US1 | 9182 |
| 30678 7590 03/18/2008 CONNOLLY BOVE LODGE & HUTZ LLP 1875 EYE STREET, N.W. SUITE 1100 WASHINGTON, DC 20036 | | | EXAMINER PHAM, EMILY P | |
| | | | ART UNIT 2838 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/565,210 | Applicant(s) ELIAS ET AL. | |
| | Examiner EMILY PHAM | Art Unit 2838 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01/20/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01/20/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/20/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 02/06/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 7, 10, 11, 29-33, and 34-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 7, 29, and 34 recite the limitation "said isolation". There is insufficient antecedent basis for this limitation in the claim.

Claim 34 recites the limitation "said electronic device". There is insufficient antecedent basis for this limitation in the claim; it is unclear whether said electronic device is prosthetic hearing implant system or battery charger.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 7, 8, 9, 29-31 and 34-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Ofer et al. (USP 5,627,472).

Regarding claims 1-4 and 8, 9: Ofer et al. (**FIG 1**) disclose an apparatus that can perform a method of managing a power supply for an electronic device, the power supply having a rechargeable battery source (**30**) and an auxiliary power source (**25**), said method comprising the steps of implementing a measuring circuit (**20; col. 7, line 22**) to measure parametric data of the rechargeable battery source (**30**) during operational charging and discharging cycles with the electronic device; checking for temporary removal of the rechargeable battery source (**30**) from operation of the device; and testing the measuring circuit for offset error, if power from the rechargeable battery source has been temporarily removed, before resuming said implementing step (**col. 2, line 25 – col. 10, line 28**).

Regarding claim 7: Ofer et al. (**FIG 1**) disclose a power supply for an electronic device, said power supply comprising: a rechargeable battery source (**30**) configured for cyclical charging and discharging by said electronic device; a measuring circuit (**20; col. 7, line 22**) for measuring parametric data during said charging and discharging; an auxiliary power source (**25**) being able to power said electronic device independently of said battery source (**30**); and a testing circuit (**10; col. 7, line 22**) for testing said measuring circuit for offset error; and a circuit (**FIG 3, 38, 122**) for reducing current flow from said rechargeable battery to said device to a minimal value; wherein said testing

circuit **(10; col. 7, lines 22-44)** is enabled during said isolation of said rechargeable battery from said device **(col. 2, line 25 – col. 10, line 28)**.

Regarding claims 29-31: Ofer et al. **(FIG 1)** disclose a battery charger for an electronic device, said battery charger comprising: a rechargeable battery source **(30)** configured for cyclical charging and discharging by said electronic device; a measuring circuit **(20; col. 7, line 22)** for measuring parametric data during said charging and discharging; an auxiliary power source **(25)** being able to power said electronic device independently of said battery source; and a testing circuit **(10; col. 7, line 22)** for testing said measuring circuit for offset error; and a circuit **(FIG 3, 38, 122)** for reducing current flow from said rechargeable battery to said device to a minimal value; wherein said testing circuit is enabled during said isolation of said rechargeable battery from said device, wherein said testing circuit corrects any offset error before current is restored to said device from said rechargeable battery, wherein said parametric data includes cumulative charge **(col. 2, line 25 – col. 10, line 28)**.

Regarding claims 34-36: Ofer et al. **(FIG 1)** disclose a battery charger **(FIG 1)** comprising: a rechargeable battery source **(30)** configured for cyclical charging and discharging by said electronic device; a measuring circuit **(20; col. 7, line 22)** for measuring parametric data during said charging and discharging; an auxiliary power source **(25)** being able to power said electronic device independently of said battery source; and a testing circuit **(10; col. 7, line 22)** for testing said measuring circuit for offset error; and a disconnection circuit for isolating current flow from said rechargeable battery to said device **(47, 48; col. 5 lines 18-21)**; wherein said testing circuit is enabled

during said isolation of said rechargeable battery from said device (**col. 2, line 25 – col. 10, line 28**).

6. Claims 12-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Levesque (USP 6,100,670). Levesque (**FIG 3**) discloses a system for operating a rechargeable battery (**10, 12**), said system comprising: current maintaining means for maintaining a predetermined current (**col. 7, lines 64-65; threshold values for current and voltage**) to said rechargeable battery until said rechargeable battery reaches a predetermined maximum voltage; voltage maintaining means for maintaining a predetermined voltage (**threshold value for voltage**) to said rechargeable battery until a predetermined minimum current (**col. 10, lines 1 – 10**) is delivered to said rechargeable battery (**10, 12**); determining means for determining a cyclical charge value (**pre-pulse value**) delivered to said rechargeable battery (**10, 12**) by said current maintaining means and said voltage maintaining means during a cycle; and correction means (**44**) for correcting said determining means when charge is not being delivered to said rechargeable battery (**10, 12**), on the basis of said charge value (**pre-pulse value; col. 3, line 25 – col. 10, line 40**).

7. Claims 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Levesque (USP 6,100,670).

Regarding independent claim 26: Levesque (**FIG 3**) discloses an apparatus for characterizing a rechargeable battery (**10, 12**), said apparatus comprising: a current limited source (**44**) for delivering, during a first charging stage, a current flow to said rechargeable battery, until said rechargeable battery (**10, 12**) reaches a predetermined

maximum voltage (**col. 10, lines 1 – 10**); a voltage limited source (**40, 50**) for maintaining, during a second charging stage, a substantially constant voltage to said rechargeable battery, until a current flow delivered to said rechargeable battery is below a predetermined minimum current (**col. 10, lines 1 – 10**); an integrator (**54**) configured to integrate current flow delivered to said rechargeable battery (**10, 12**) during the first and second calibration stages; threshold detector means (**43**) configured to signal a unit count of charge upon detection of a predetermined level of charge indicated by the output from said integrator; and correlator (**microcontroller clock**) configured to correlate a total number of unit counts of charge during said first and second calibration stages with said predetermined maximum voltage and said predetermined minimum current (**col. 3, line 25 – col. 10, line 40**).

Regarding dependent claim 27: Levesque discloses the apparatus wherein said second calibration stage commences after completion of said first calibration stage (**col. 3, line 25 – col. 10, line 40**).

Regarding independent claim 28: Levesque (**FIG 3**) discloses a computer readable medium (**microcontroller 8**), having a program (**data, 41, 56**) recorded thereon, where the program is configured to make a computer execute a procedure to operate a rechargeable battery (**10, 12**), said procedure comprising the steps of: characterizing the battery comprising the sub-steps of:(i) delivering a substantially constant current to said rechargeable battery until said rechargeable battery reaches a predetermined maximum voltage;(ii) delivering a substantially constant voltage to said rechargeable battery until a predetermined minimum current is delivered to said

rechargeable battery; and(iii) determining a delivered charge value delivered to said rechargeable battery by sub-steps (i) and (ii); and cyclically charging and discharging of said rechargeable battery according to said determined delivered charge value (**col. 3, line 25 – col. 10, line 40**).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5, 6, 10, 11, 37, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ofer et al. (USP 5,627,472) as applied to claims 1, 7, and 34 above, in view of Branch et al. (USP 3,764,748).

Regarding claims 5, 10, and 37: Ofer et al. disclose the claimed invention except that electronic device is an implantable medical device. Branch et al. (**FIG 9, FIG 16, FIG 18, FIG 19**) teach electronic device is an implantable medical device.

Regarding claims 6, 11, and 38: Ofer et al. disclose the claimed invention except that the implantable medical device is a prosthetic hearing implant system. Branch et al. (**FIG 9, FIG 16, FIG 18, FIG 19**) teach implantable medical device is a prosthetic hearing implant system (**Abstract, Summary**).

Ofer et al. and Branch et al. disclose apparatus using battery as power supply source. It would have been obvious to one having ordinary skill in the art at the time the

invention was made to modify the battery tester taught by Ofer et al. with the rechargeable battery of the prosthetic hearing implant system taught by Branch et al. for the purpose of providing an effective battery tester and charger for the prosthetic hearing implant system.

10. Claims 24, 25, 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levesque (USP 6,100,670) as applied to claim 12 above, in view of Branch et al. (USP 3,764,748). Levesque discloses the claimed invention except for implantable medical device is a prosthetic hearing implant. Branch et al. (**FIG 9, FIG 16, FIG 18, FIG 19**) teach medical device is a prosthetic hearing implant (**Abstract, Summary**).

Levesque and Branch et al. disclose apparatus using battery as power supply source. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the battery tester taught by Levesque with the rechargeable battery of the prosthetic hearing implant system taught by Branch et al. for the purpose of providing an effective battery tester and charger for the prosthetic hearing implant system.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Schumaier (USP 7,302,071) discloses hearing assistant device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EMILY PHAM whose telephone number is (571)270-3046. The examiner can normally be reached on Mon-Thu (7:00AM - 6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm Ullah can be reached on (571) 272 - 2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 2008

/Jessica Han/
Primary Examiner, Art Unit 2838

/E. P./
Examiner, Art Unit 2838